

**QUARTERLY INDEXES OF INDUSTRIAL PRODUCTION, AUSTRALIA
MARCH QUARTER 1995**

MAIN FEATURES

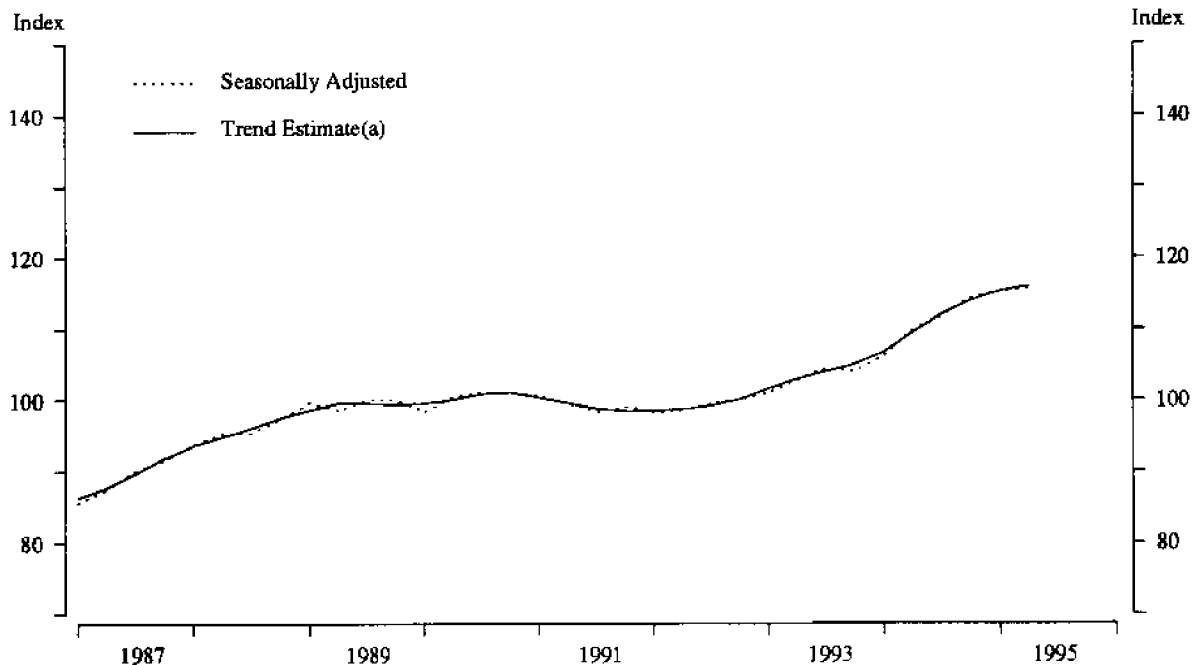
NOTE: This issue shows revisions for all years as a result of final industry data for the base year estimates of industry gross product becoming available, replacing preliminary base year data which were used to compile the December quarter 1994 indexes. For further information see paragraphs 2 and 3 of the Explanatory Notes.
NEXT ISSUE: 5 SEPTEMBER 1995

Trend estimates for the March quarter 1995 show the index of industrial production continuing to grow, and reaching a new record high level. However, at 0.6 per cent, March quarter trend growth was the lowest for eleven quarters and continued the recent pattern of declining growth levels. The sequence of trend estimate increases now extends to thirteen quarters. The March quarter 1995 trend estimate stands 6.0 per cent above the March quarter 1994 estimate.

In the March quarter 1995, the mining production trend estimate grew by 1.0 per cent while the manufacturing industry trend estimate grew by 0.7 per cent. The trend estimate for the electricity, gas and water utilities industry remained steady.

In seasonally adjusted terms rises of 2.3 per cent for mining and 0.4 per cent for manufacturing combined with a fall of 2.6 per cent for utilities gave 0.3 per cent growth for the industrial production index overall in March quarter 1995.

**INDEX OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1989-90 PRICES
(BASE: 1989-90 = 100.0)**



(a) See paragraphs 21 to 23 of the Explanatory Notes. Trend estimates for the most recent periods are provisional and could change when data for further quarters are available.

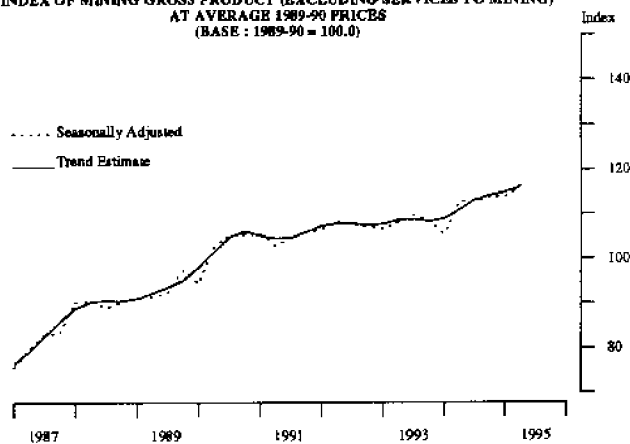
INQUIRIES

- for information about statistics in this publication and the availability of related unpublished statistics, contact Mr Harvey Bissett on Canberra (06) 252 5639 or any ABS State office.
- for information about other ABS statistics and services please contact Information Services on Canberra (06) 252 6627, 252 5402, 252 6007 or any ABS State Office.

SUMMARY OF FINDINGS

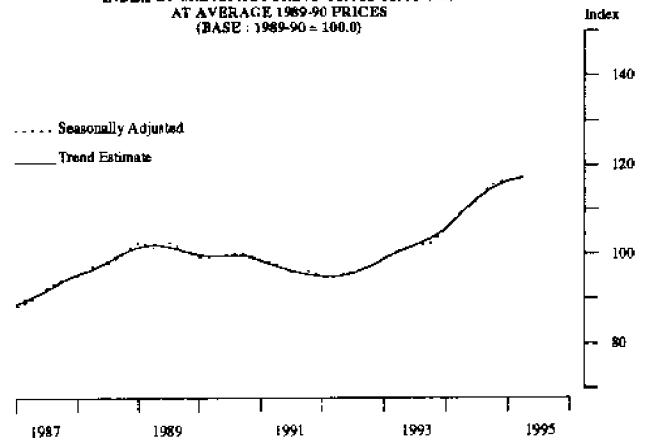
Components of the industrial production index

(i) Mining

INDEX OF MINING GROSS PRODUCT (EXCLUDING SERVICES TO MINING)
AT AVERAGE 1989-90 PRICES
(BASE : 1989-90 = 100.0)

The March quarter 1995 trend estimate for the index of mining production showed continuation of steady growth over several quarters, and was consistent with the generally rising trend over several years. The trend estimate reached a new record level in March Quarter 1995.

(ii) Manufacturing

INDEX OF MANUFACTURING GROSS PRODUCT
AT AVERAGE 1989-90 PRICES
(BASE : 1989-90 = 100.0)

The trend estimate for the index of manufacturing production has grown steadily over the past three years, following three years of decline. Growth (up 0.7%) in the March quarter 1995 was lower than the general level of quarterly growth of recent years and is the lowest since June quarter 1992. Nevertheless, this modest growth took the estimate to a record high level, which is 7.3 per cent above the estimate for the March quarter 1994 and over 16 per cent above the estimate for March quarter 1993.

Seven of the nine manufacturing subdivisions showed trend growth in March quarter 1995 with five of these achieving record high level trend estimates. Textiles, clothing, footwear and leather manufacturing showed a 2.0 per cent rise in trend production during the quarter from the record low level reached in December quarter 1994. Trend estimates fell for only Food, beverages and tobacco and Printing, publishing and recorded media. March quarter 1995 and other recent movements in the estimates of trend for each manufacturing subdivision are summarized below:

- *Food, beverages and tobacco manufacturing.* March quarter 1995 saw a 1.5 per cent fall in the trend series for this industry from the record high level reached in December quarter 1994. The March quarter 1995 estimate stands 4.8 per cent higher than the estimate for March quarter 1994.
- *Textiles, clothing, footwear and leather manufacturing.* March quarter 1995 saw a 2.0 per cent rise in the trend estimate for this industry from the record low level of December quarter 1994. Despite the rise, the March quarter 1995 estimate stands almost 8.0 per cent lower than the estimate for March quarter 1994.
- *Wood, and paper products manufacturing.* A 1.6 per cent rise in the trend series for this industry has brought the estimate to the highest level since September quarter 1989. The trend estimates have exhibited steady growth for the past six quarters

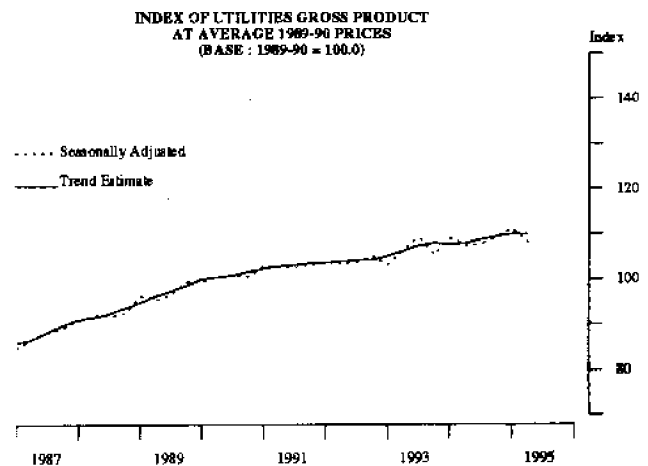
and the March quarter 1995 stands 9.4 per cent above the level of March quarter 1994.

- *Printing, publishing and recorded media.* March quarter 1995 saw a 2.0 per cent fall in the trend series for this industry, the second successive fall after the record high level reached in September quarter 1994, but 3.9 per cent higher than the estimate for March quarter 1994.
- *Petroleum, coal, chemical and associated product manufacturing.* A 0.5 per cent rise in the trend series for this industry has brought the estimate to a record high level. The estimates have exhibited steady growth over the past five quarters which in turn followed three quarters of strong growth. The estimate for March quarter 1995 stands 5.4 per cent above the estimate for March quarter 1994.
- *Non-metallic mineral products manufacturing.* A 3.8 per cent rise in the trend series for this industry (the largest rise for any industry in the March quarter 1995) has brought the estimate to a record high level. The estimates have exhibited strong growth over the past three years. The estimate for March quarter 1995 stands almost 23 per cent above the estimate for March quarter 1994.
- *Metal products manufacturing.* A modest 0.4 per cent rise in the trend series for this industry, following steady growth over several quarters has brought the estimate to a record high level. The estimate for March quarter 1995 stands 6.9 per cent above the estimate for March quarter 1994.
- *Machinery and equipment manufacturing.* A 2.6 per cent rise in the trend series for this industry

has brought the estimate to a record high level. The estimates have exhibited steady to strong growth over the past three years. The estimate for March quarter 1995 stands 10.2 per cent above the estimate for March quarter 1994.

- *Other manufacturing.* A 2.3 per cent rise in the trend series for this industry has brought the estimate to a record high level. The estimates have exhibited strong growth for several quarters. The estimate for March quarter 1995 stands 13 per cent above the estimate for March quarter 1994.

(iii) *Electricity, gas and water utilities*



The trend estimate for the index for electricity, gas and water utility industries shows no change for the March quarter 1995. This leaves the estimate at the record high level achieved during December quarter 1994. The estimate for March quarter 1995 stands 1.9 per cent above the estimate for March quarter 1994.

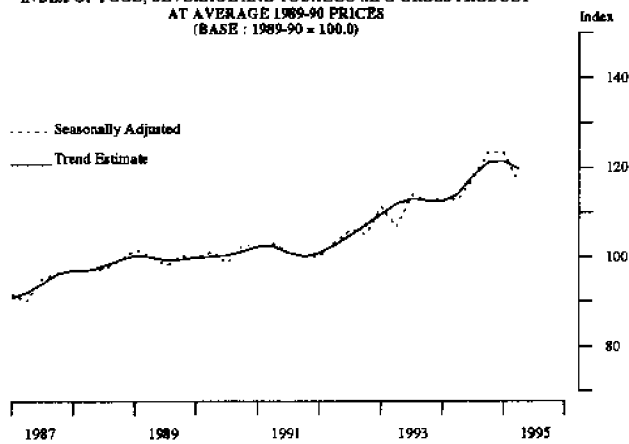
TABLE 1. INDEXES OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1989-90 PRICES—SEASONALLY ADJUSTED AND TREND ESTIMATES
Index numbers (Base : 1989-90 = 100.0)

	Quarters ended													
	1991-92			1992-93			1993-94			1994-95				
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.
	<i>Seasonally adjusted</i>													
Mining (excluding services to mining)	106.6	108.1	107.6	107.1	106.7	108.2	109.8	108.4	105.4	112.8	113.0	113.9	113.8	116.4
Manufacturing	95.0	95.2	96.3	97.0	99.0	100.8	102.1	102.5	105.8	109.5	112.2	115.9	116.7	117.2
Electricity, gas and water	103.7	103.3	103.9	105.1	103.1	106.4	109.3	105.4	109.0	107.5	107.8	109.3	111.1	108.2
Total industrial production	98.4	98.7	99.5	100.0	101.0	102.9	104.6	104.0	106.2	109.8	111.7	114.5	115.3	115.7
	<i>Trend estimates</i>													
Mining (excluding services to mining)	107.3	107.9	107.9	107.5	107.7	108.7	108.8	108.4	108.9	111.0	113.2	114.3	114.9	116.0
Manufacturing	95.2	95.2	95.8	97.3	99.1	100.7	102.0	103.5	105.9	109.3	112.5	114.9	116.5	117.3
Electricity, gas and water	103.7	104.0	104.2	104.2	105.1	106.3	107.5	108.0	107.8	107.9	108.7	109.4	109.9	109.9
Total industrial production	98.6	98.8	99.2	100.1	101.5	103.0	104.0	105.0	106.7	109.4	112.1	114.0	115.3	116.0

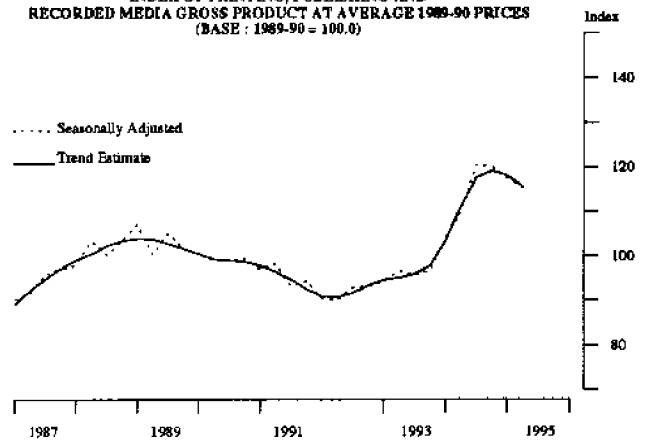
TABLE 2. PERCENTAGE CHANGES IN INDEXES OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1989-90 PRICES—SEASONALLY ADJUSTED AND TREND ESTIMATES

	Change from preceding quarter													
	1991-92			1992-93			1993-94			1994-95			Mar. Qtr 1994	to Mar. Qtr 1995
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	Mar.
	<i>Seasonally adjusted</i>													
Mining (excluding services to mining)	1.4	0.5	-0.5	-0.4	1.4	1.5	1.3	-2.8	7.0	0.2	0.8	-0.1	2.3	3.2
Manufacturing	0.2	1.2	0.7	2.1	1.8	1.3	0.4	3.2	3.5	2.5	3.3	0.7	0.4	7.0
Electricity, gas and water	-0.4	0.6	1.2	-1.9	3.2	2.7	-3.6	3.4	-1.4	0.3	1.4	1.6	-2.6	0.7
Total industrial production	0.3	0.8	0.5	1.0	1.9	1.7	-0.6	2.1	3.4	1.7	2.5	0.7	0.3	5.4
	<i>Trend estimates</i>													
Mining (excluding services to mining)	0.6	0.6	-0.4	0.2	0.9	0.1	-0.4	0.5	1.9	2.0	1.0	0.5	1.0	4.5
Manufacturing	—	0.6	1.6	1.8	1.6	1.3	1.5	2.3	3.2	2.9	2.1	1.4	0.7	7.3
Electricity, gas and water	0.3	0.2	—	0.9	1.1	1.1	0.5	-0.2	0.1	0.7	0.6	0.5	—	1.9
Total industrial production	0.2	0.4	0.9	1.4	1.5	1.0	1.0	1.6	2.5	2.5	1.7	1.1	0.6	6.0

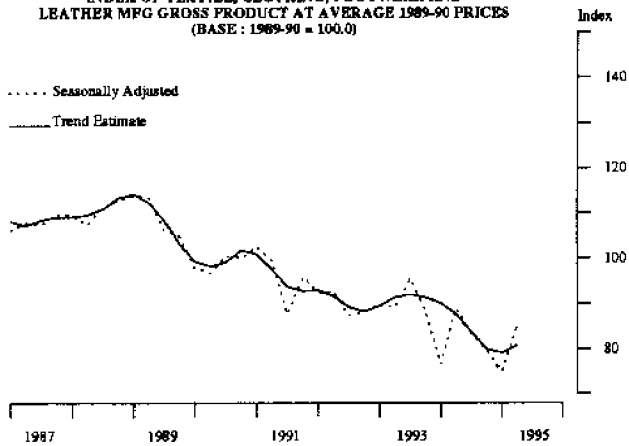
INDEX OF FOOD, BEVERAGE AND TOBACCO MFG GROSS PRODUCT AT AVERAGE 1989-90 PRICES (BASE : 1989-90 = 100.0)



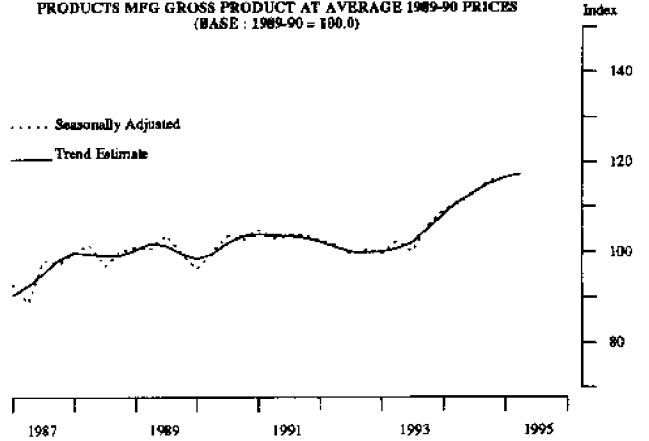
INDEX OF PRINTING, PUBLISHING AND RECORDED MEDIA GROSS PRODUCT AT AVERAGE 1989-90 PRICES (BASE : 1989-90 = 100.0)



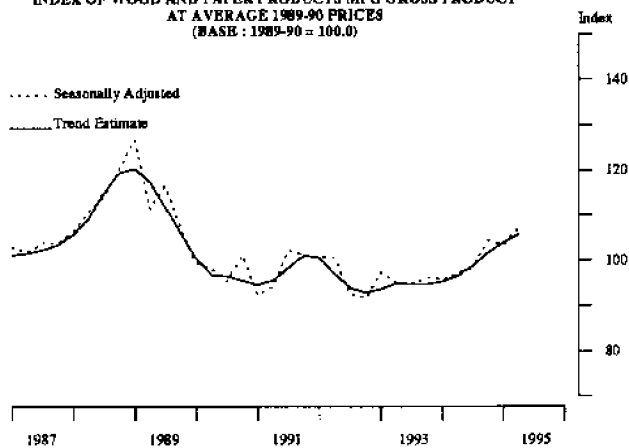
INDEX OF TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG GROSS PRODUCT AT AVERAGE 1989-90 PRICES (BASE : 1989-90 = 100.0)



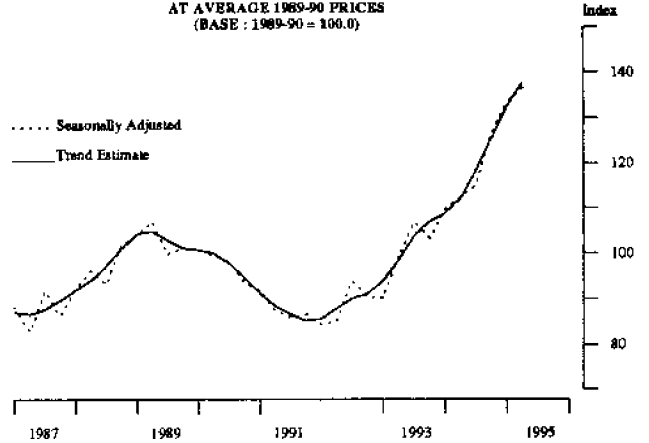
INDEX OF PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCTS MFG GROSS PRODUCT AT AVERAGE 1989-90 PRICES (BASE : 1989-90 = 100.0)



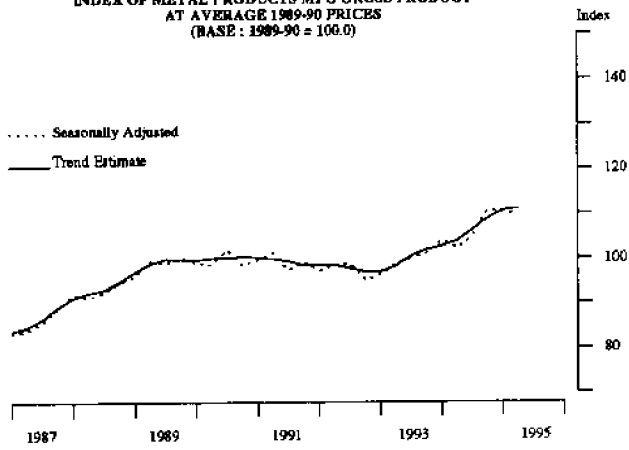
INDEX OF WOOD AND PAPER PRODUCTS MFG GROSS PRODUCT AT AVERAGE 1989-90 PRICES (BASE : 1989-90 = 100.0)



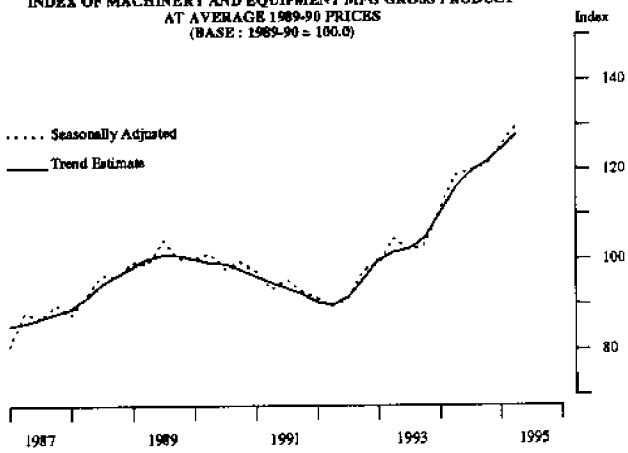
INDEX OF NON-METALLIC MINERAL PRODUCTS MFG GROSS PRODUCT AT AVERAGE 1989-90 PRICES (BASE : 1989-90 = 100.0)



INDEX OF METAL PRODUCTS MFG GROSS PRODUCT
AT AVERAGE 1989-90 PRICES
(BASE : 1989-90 = 100.0)



INDEX OF MACHINERY AND EQUIPMENT MFG GROSS PRODUCT
AT AVERAGE 1989-90 PRICES
(BASE : 1989-90 = 100.0)



INDEX OF OTHER MANUFACTURING GROSS PRODUCT
AT AVERAGE 1989-90 PRICES
(BASE : 1989-90 = 100.0)

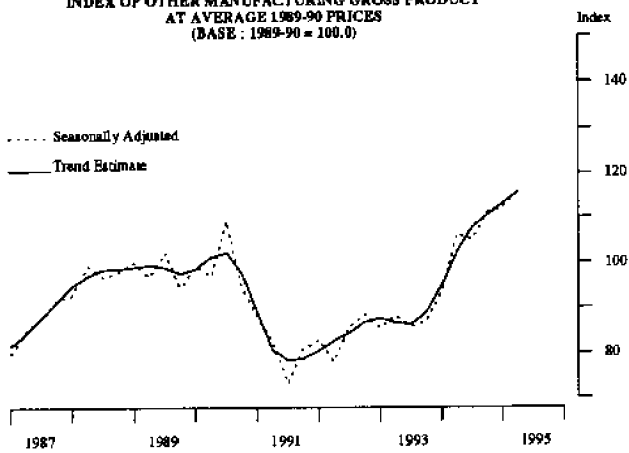


TABLE 3. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES, BY SUBDIVISION — SEASONALLY ADJUSTED
Index numbers (Base : 1989-90 = 100.0)

ANZSIC Sub- Divn.	Industry	Quarters ended													
		1991-92			1992-93			1993-94			1994-95				
		Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.
21	Food, beverages and tobacco mfg	100.1	103.6	106.1	105.2	111.2	106.8	114.0	112.5	113.1	112.8	117.5	123.5	123.2	116.4
22	Textile, clothing, footwear and leather mfg	92.5	92.8	87.4	88.2	90.0	89.2	95.5	88.6	76.5	89.0	83.5	79.6	75.0	85.1
23	Wood and paper products mfg	100.8	100.4	92.6	91.8	97.4	95.2	94.8	96.4	96.0	97.2	98.5	104.3	103.5	107.1
24	Printing, publishing and recorded media mfg	90.4	90.1	93.0	93.3	94.4	96.8	95.8	96.8	104.0	110.1	120.4	120.0	117.2	115.5
25	Petroleum, coal, chemical & assoc products mfg	102.6	101.6	99.6	100.5	99.7	102.6	100.1	105.8	109.2	111.0	113.0	115.9	116.7	117.3
26	Non-metallic mineral products mfg	84.6	85.3	94.1	90.4	90.3	99.3	106.9	103.4	109.8	112.5	115.0	126.5	133.3	136.5
27	Metal products mfg	97.3	98.6	99.1	95.1	96.5	98.9	100.1	101.2	104.1	102.2	104.7	110.7	110.5	109.7
28	Machinery and equipment mfg	91.5	89.9	91.3	97.7	99.2	104.8	102.2	103.4	111.0	118.7	120.0	121.0	125.2	129.9
29	Other manufacturing	83.0	78.1	85.8	88.4	85.4	88.1	85.8	86.9	93.2	106.2	105.0	111.1	112.3	115.7
	Total manufacturing	95.0	95.2	96.3	97.0	99.0	100.8	102.1	102.5	105.8	109.5	112.2	115.9	116.7	117.2

TABLE 4. PERCENTAGE CHANGES IN INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY SUBDIVISION — SEASONALLY ADJUSTED

ANZSIC Sub- Divn.	Industry	Change from preceding quarter													
		1991-92			1992-93			1993-94			1994-95				
		Mar.	June	Sept.	Mar.	June	Sept.	Mar.	June	Sept.	Mar.	June	Sept.	Mar.	June
21	Food, beverages and tobacco mfg	3.5	2.4	-0.8	5.7	-4.0	6.7	-1.3	0.5	0.3	4.2	5.1	-0.2	-5.5	3.2
22	Textile, clothing, footwear and leather mfg	0.3	-5.8	0.9	2.0	-0.9	7.1	-7.2	13.7	16.3	-6.2	-4.7	-5.8	13.5	-4.4
23	Wood and paper products mfg	0.4	-7.8	-0.9	6.1	2.3	-0.4	1.7	-0.4	1.2	1.3	5.9	-0.8	3.5	10.2
24	Printing, publishing and recorded media mfg	0.3	3.2	0.3	1.2	2.5	-1.0	1.0	7.4	5.9	9.4	-0.3	-2.3	-1.5	4.9
25	Petroleum, coal, chemical & assoc products mfg	-1.0	-2.0	0.9	-0.8	2.9	-2.4	5.7	3.2	1.6	1.8	2.6	0.7	0.5	5.7
26	Non-metallic mineral products mfg	0.8	10.3	-3.9	-0.1	10.0	7.7	3.3	6.2	2.5	2.2	10.0	5.4	2.4	21.3
27	Metal products mfg	1.3	0.5	-4.0	1.5	2.5	1.2	1.1	2.9	1.8	2.4	5.7	-0.2	-0.7	7.3
28	Machinery and equipment mfg	-1.7	1.6	7.0	1.5	5.6	-2.5	1.2	7.4	6.9	1.1	0.8	3.5	3.8	9.4
29	Other manufacturing	-5.9	9.9	3.0	3.4	3.2	-2.6	1.3	7.2	13.9	-1.1	5.8	1.1	3.0	8.9
	Total manufacturing	0.2	1.2	0.7	2.1	1.8	1.3	0.4	3.2	3.5	2.5	3.3	0.7	0.4	7.0

TABLE 5. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES, BY SUBDIVISION — TREND ESTIMATES
Index numbers (Base : 1989-90 = 100.0)

ANZSIC Sub— Divn.	Industry	Quarters ended													
		1991-92			1992-93			1993-94			1994-95				
		Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.
21	Food, beverages and tobacco mfg	101.0	102.8	105.0	107.2	109.6	111.9	113.1	112.8	112.5	114.1	118.2	121.1	121.4	119.6
22	Textile, clothing, footwear and leather mfg	93.1	91.7	89.3	88.4	89.6	91.5	92.1	91.5	90.1	87.7	83.7	79.9	79.2	80.8
23	Wood and paper products mfg	100.6	97.0	94.1	93.0	93.8	95.0	94.9	94.9	95.4	96.6	98.8	101.7	104.0	105.7
24	Printing, publishing and recorded media mfg	91.0	90.8	91.6	93.4	94.6	95.1	95.9	97.9	103.4	111.3	117.5	119.0	117.9	115.6
25	Petroleum, coal, chemical & assoc. products mfg	102.5	101.2	100.1	100.0	100.2	100.8	102.2	105.1	108.3	111.2	113.3	115.2	116.6	117.2
26	Non-metallic mineral products mfg	85.8	87.9	90.1	91.3	94.0	98.7	103.9	107.1	108.8	112.2	118.3	125.4	132.5	137.6
27	Metal products mfg	98.6	98.7	97.8	97.0	97.0	98.4	100.6	102.0	102.7	103.9	106.3	108.9	110.7	111.1
28	Machinery and equipment mfg	90.7	90.0	91.8	95.8	99.9	101.8	102.4	104.9	110.2	116.0	119.4	121.7	124.6	127.8
29	Other manufacturing	80.5	82.7	84.4	86.8	87.6	86.6	86.2	88.9	94.9	102.3	107.7	110.6	113.0	115.6
	Total manufacturing	95.2	95.2	95.8	97.3	99.1	100.7	102.0	103.5	105.9	109.3	112.5	114.9	116.5	117.3

TABLE 6. PERCENTAGE CHANGES IN INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES
BY SUBDIVISION — TREND ESTIMATES

ANZSIC Sub— Divn.	Industry	Change from preceding quarter													
		1991-92			1992-93			1993-94			1994-95				
		Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	
21	Food, beverages and tobacco mfg	1.8	2.1	2.1	2.2	2.1	1.1	-0.3	-0.3	1.4	3.6	2.5	0.2	-1.5	4.8
22	Textile, clothing, footwear and leather mfg	-1.5	-2.6	-1.0	1.4	2.1	0.7	-0.7	-1.5	2.7	-4.6	-4.5	-0.9	2.0	-7.9
23	Wood and paper products mfg	3.6	-3.0	-1.2	0.9	1.3	-0.1	--	0.5	1.3	2.3	2.9	2.3	1.6	9.4
24	Printing, publishing and recorded media mfg	0.2	0.9	2.0	1.3	0.5	0.8	2.1	5.6	7.6	5.6	1.3	0.9	-2.0	3.9
25	Petroleum, coal, chemical & assoc. products mfg	-1.3	-1.1	-0.1	0.2	0.6	1.4	2.8	3.0	2.7	1.9	1.7	1.2	0.5	5.4
26	Non-metallic mineral products mfg	2.4	2.5	1.3	3.0	5.0	5.3	3.1	1.6	3.1	5.4	6.0	5.7	3.8	22.6
27	Metal products mfg	0.1	-0.9	-0.8	1.4	2.2	2.2	1.4	0.7	1.2	2.3	2.4	1.7	0.4	6.9
28	Machinery and equipment mfg	-0.8	2.0	4.4	4.3	1.9	0.6	2.4	5.1	5.3	2.9	1.9	2.4	2.6	10.2
29	Other manufacturing	2.7	2.1	2.8	0.9	1.1	-0.5	3.1	6.7	7.8	5.3	2.7	2.2	2.3	13.0
	Total manufacturing	—	0.6	1.6	1.8	1.6	1.3	1.5	2.3	3.2	2.9	2.1	1.4	0.7	7.3

Mar. Qtr 1994 to Mar. Qtr 1995

TABLE 7. INDEXES OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY INDUSTRY — ORIGINAL

		Index numbers (Base : 1989-90 = 100.0)			
		<i>Mining excluding Services to mining</i>	<i>Manufacturing</i>	<i>Electricity, gas and water</i>	<i>Total</i>
1976-77		n.a.	n.a.	n.a.	n.a.
1977-78		57.8	78.5	57.9	71.7
1978-79		59.3	81.7	61.0	74.6
1979-80		58.1	85.3	65.2	77.4
1980-81		59.1	87.0	68.1	79.2
1981-82		58.7	89.2	71.7	81.1
1982-83		60.9	81.8	73.8	76.8
1983-84		65.4	83.1	76.8	79.0
1984-85		73.9	87.3	81.6	84.0
1985-86		82.6	87.8	84.7	86.4
1986-87		78.4	90.2	86.6	87.5
1987-88		88.5	96.2	91.0	94.0
1988-89		91.6	101.7	95.2	98.9
1989-90		100.0	100.0	100.0	100.0
1990-91		104.8	98.1	102.2	99.9
1991-92		107.1	95.7	103.6	98.9
1992-93		108.0	99.7	105.9	102.1
1993-94		109.9	107.4	107.4	107.8
1978-79	Sept.	60.0	82.1	62.0	75.1
	Dec.	59.7	85.5	58.9	76.9
	Mar.	56.9	76.6	60.8	70.8
	June	60.5	82.8	62.2	75.7
1979-80	Sept.	62.7	87.6	66.8	80.1
	Dec.	61.9	89.0	64.1	80.4
	Mar.	53.6	80.3	64.5	73.1
	June	53.9	84.2	65.4	75.9
1980-81	Sept.	60.1	87.8	69.6	80.1
	Dec.	59.0	91.9	67.5	82.4
	Mar.	59.3	81.2	66.6	75.1
	June	58.1	87.1	68.8	79.2
1981-82	Sept.	56.6	91.6	73.7	82.6
	Dec.	60.3	93.9	69.3	84.2
	Mar.	55.4	82.1	70.3	75.5
	June	62.3	89.0	73.6	81.9
1982-83	Sept.	60.8	90.1	77.0	82.8
	Dec.	62.3	83.6	73.1	78.2
	Mar.	57.9	72.5	71.3	69.6
	June	62.6	81.2	73.6	76.7
1983-84	Sept.	64.5	83.8	78.0	79.5
	Dec.	64.0	85.9	75.3	80.4
	Mar.	64.8	78.3	75.7	75.5
	June	68.2	84.3	78.4	80.5
1984-85	Sept.	72.9	90.3	83.8	86.2
	Dec.	72.6	88.8	80.6	84.7
	Mar.	70.8	80.8	80.4	78.9
	June	79.1	89.5	81.6	86.4
1985-86	Sept.	90.1	90.9	86.8	90.1
	Dec.	84.5	92.9	81.9	89.8
	Mar.	81.0	80.8	84.4	81.3
	June	74.7	86.5	85.9	84.3
1986-87	Sept.	77.5	92.3	89.1	89.2
	Dec.	77.4	92.9	83.7	88.7
	Mar.	77.6	83.5	85.9	82.8
	June	80.8	92.1	87.5	89.4
1987-88	Sept.	86.6	96.6	92.7	94.2
	Dec.	92.2	99.9	90.0	97.1
	Mar.	88.1	91.0	90.6	90.4
	June	86.9	97.4	90.5	94.5
1988-89	Sept.	93.7	102.6	95.9	100.0
	Dec.	93.0	107.6	95.5	103.1
	Mar.	88.8	95.0	93.8	93.7
	June	90.8	101.8	95.6	98.9
1989-90	Sept.	100.9	103.2	102.9	102.7
	Dec.	95.8	103.9	98.8	101.7
	Mar.	99.4	93.8	98.9	95.6
	June	103.8	99.1	99.4	100.0
1990-91	Sept.	109.3	102.3	104.2	103.8
	Dec.	106.6	103.1	102.2	103.6
	Mar.	99.3	92.3	101.2	94.9
	June	104.0	94.9	101.1	97.4
1991-92	Sept.	110.1	98.5	107.0	101.8
	Dec.	106.9	99.1	103.1	101.1
	Mar.	104.0	90.1	101.8	94.3
	June	107.4	95.1	102.5	98.4
1992-93	Sept.	111.4	99.0	109.2	102.7
	Dec.	106.7	103.5	102.0	103.8
	Mar.	104.0	95.4	104.8	98.3
	June	110.0	100.8	107.6	103.4
1993-94	Sept.	112.9	104.5	109.6	106.8
	Dec.	105.1	110.6	107.9	109.2
	Mar.	108.5	103.6	105.8	104.8
	June	113.3	110.7	106.2	110.5
1994-95	Sept.	118.6	118.1	113.6	117.5
	Dec.	113.2	122.0	109.9	118.6
	Mar.	112.0	110.9	106.4	110.5

TABLE 8. INDEXES OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY INDUSTRY — SEASONALLY ADJUSTED AND TREND ESTIMATES

Index numbers (Base: 1989-90 = 100.0)

	Seasonally adjusted				Trend estimates			
	Mining excluding Services to mining	Manufacturing	Electricity, gas and water	Total	Mining excluding Services to mining	Manufacturing	Electricity, gas and water	Total
1978-79 —								
Sept.	59.0	80.1	59.4	73.2	58.8	80.2	59.4	73.3
Dec.	58.5	81.2	59.8	73.9	59.0	81.2	60.6	74.2
Mar.	59.1	82.6	62.1	75.4	59.7	82.4	61.8	75.2
June	60.6	83.4	62.7	76.2	60.9	83.6	63.1	76.5
1979-80 —								
Sept.	61.6	85.3	64.1	77.9	61.3	84.6	64.2	77.4
Dec.	60.7	84.7	65.1	77.5	59.4	85.4	65.2	77.7
Mar.	55.6	86.7	66.0	78.0	56.9	85.4	65.8	77.4
June	54.1	84.7	65.9	76.4	55.8	85.3	66.4	77.2
1980-81 —								
Sept.	58.8	85.2	66.8	77.7	57.2	85.8	67.2	77.9
Dec.	57.9	87.7	68.4	79.5	59.5	86.7	68.0	79.0
Mar.	61.5	87.8	68.2	80.2	59.8	87.5	68.7	79.8
June	58.5	87.5	69.0	79.5	58.7	88.0	69.4	80.0
1981-82 —								
Sept.	55.3	88.6	70.5	79.9	57.4	88.5	70.2	80.2
Dec.	59.2	89.9	70.4	81.4	57.7	89.2	71.3	80.9
Mar.	57.4	89.0	72.3	80.8	59.4	89.7	72.5	81.7
June	62.8	89.2	73.9	82.2	60.7	88.6	73.7	81.3
1982-83 —								
Sept.	59.3	87.0	74.0	80.1	60.8	85.3	74.3	79.3
Dec.	61.0	80.2	74.0	75.8	60.7	81.6	73.9	76.7
Mar.	60.0	78.4	73.0	74.3	61.3	79.5	73.7	75.3
June	63.2	81.3	73.8	76.9	62.2	79.8	74.1	75.7
1983-84 —								
Sept.	62.9	81.0	75.0	76.9	63.0	81.4	75.1	77.1
Dec.	62.7	82.6	76.4	78.1	64.4	82.7	76.4	78.4
Mar.	67.0	84.7	77.5	80.4	66.5	83.9	77.7	79.8
June	69.1	84.3	78.7	80.7	69.0	84.9	79.0	81.2
1984-85 —								
Sept.	70.2	88.0	80.5	83.7	69.4	86.2	81.0	82.4
Dec.	71.2	84.6	81.7	81.8	71.5	86.3	81.6	83.0
Mar.	72.8	87.0	82.0	83.7	75.6	87.2	82.2	84.3
June	81.4	89.9	82.1	87.2	80.8	88.4	82.6	86.2
1985-86 —								
Sept.	86.9	88.6	83.5	87.5	84.8	89.0	83.1	87.4
Dec.	82.8	88.5	83.0	86.7	85.0	88.0	84.2	86.9
Mar.	83.4	87.0	85.7	86.1	81.8	87.3	85.5	86.1
June	76.8	86.9	86.7	85.1	77.9	87.7	86.2	85.7
1986-87 —								
Sept.	74.8	90.0	86.0	86.7	75.8	88.3	86.1	85.7
Dec.	75.9	88.5	84.8	85.6	76.5	89.1	86.0	86.4
Mar.	79.8	89.8	87.2	87.6	79.3	90.3	86.9	87.8
June	83.1	92.7	88.4	90.3	82.6	92.0	88.5	89.8
1987-88 —								
Sept.	83.6	94.3	89.5	91.7	86.0	94.1	90.0	92.0
Dec.	90.4	95.3	91.0	93.8	88.9	95.6	91.1	93.7
Mar.	90.7	97.5	92.0	95.4	90.4	96.8	91.6	94.9
June	89.0	98.1	91.7	95.5	90.6	98.5	92.4	96.2
1988-89 —								
Sept.	90.5	100.2	92.6	97.3	90.6	100.3	93.6	97.5
Dec.	91.3	102.7	96.3	99.7	91.1	101.6	94.9	98.7
Mar.	91.6	101.4	95.4	98.7	92.4	102.2	96.3	99.6
June	92.6	102.7	96.8	100.0	93.6	101.7	97.5	99.6
1989-90 —								
Sept.	97.5	100.7	99.4	99.9	95.3	100.7	98.7	99.4
Dec.	94.4	99.4	99.4	98.5	98.1	99.9	100.0	99.6
Mar.	102.9	99.8	100.5	100.5	101.7	99.6	100.4	100.1
June	105.3	100.1	100.8	101.1	104.9	99.8	100.8	100.9
1990-91 —								
Sept.	105.4	99.9	100.6	101.0	106.1	99.7	101.6	101.1
Dec.	105.6	98.8	102.8	100.6	105.2	98.7	102.3	100.4
Mar.	103.0	97.8	102.6	99.4	104.6	97.5	102.8	99.6
June	104.8	95.9	102.7	98.5	104.8	96.4	103.2	98.9
1991-92 —								
Sept.	105.9	96.4	103.3	99.1	106.0	95.6	103.5	98.6
Dec.	106.6	95.0	103.7	98.4	107.3	95.2	103.7	98.6
Mar.	108.1	95.2	103.3	98.7	107.9	95.2	104.0	98.8
June	107.6	96.3	103.9	99.5	107.9	95.8	104.2	99.2
1992-93 —								
Sept.	107.1	97.0	105.1	100.0	107.5	97.3	104.2	100.1
Dec.	106.7	99.0	103.1	101.0	107.7	99.1	105.1	101.5
Mar.	108.2	100.8	106.4	102.9	108.7	100.7	106.3	103.0
June	109.8	102.1	109.3	104.6	108.8	102.0	107.5	104.0
1993-94 —								
Sept.	108.4	102.5	105.4	104.0	108.4	103.5	108.0	105.0
Dec.	105.4	105.8	109.0	106.2	108.9	105.9	107.8	106.7
Mar.	112.8	109.5	107.5	109.8	111.0	109.3	107.9	109.4
June	113.0	112.2	107.8	111.7	113.2	112.5	108.7	112.1
1994-95 —								
Sept.	113.9	115.9	109.3	114.5	114.3	114.9	109.4	114.0
Dec.	113.8	116.7	111.1	115.3	114.9	116.5	109.9	115.3
Mar.	116.4	117.2	108.2	115.7	116.0	117.3	109.9	116.0

TABLE 9. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY SUBDIVISION — ORIGINAL

		Index numbers (Base : 1989-90 = 100.0)				
		<i>Food, beverages and tobacco mfg</i>	<i>Textile, clothing footwear and leather mfg</i>	<i>Wood and paper products mfg</i>	<i>Printing, publishing and recorded media</i>	<i>Petroleum, coal, chemical and assoc products mfg</i>
1976-77		n.a.	n.a.	n.a.	n.a.	n.a.
1977-78		85.2	89.5	90.0	65.7	77.2
1978-79		86.0	94.9	93.2	69.4	82.2
1979-80		86.7	97.0	96.0	74.9	84.2
1980-81		87.7	98.2	98.3	77.2	84.9
1981-82		88.1	98.7	99.3	79.8	88.4
1982-83		87.8	92.0	90.3	75.6	83.5
1983-84		87.1	97.5	93.2	79.6	85.9
1984-85		87.9	102.4	98.5	87.4	89.4
1985-86		86.6	108.4	106.1	87.7	89.3
1986-87		91.8	107.9	102.5	90.7	92.5
1987-88		97.1	109.4	108.6	99.5	99.1
1988-89		99.8	111.5	118.9	104.1	101.5
1989-90		100.0	100.0	100.0	100.0	100.0
1990-91		102.2	97.5	97.4	97.0	103.7
1991-92		102.5	92.1	98.7	92.0	101.8
1992-93		109.3	90.6	94.6	95.1	100.7
1993-94		114.0	84.2	96.9	107.6	109.7
1978-79	Sept.	85.0	98.5	96.6	68.7	85.0
	Dec.	93.3	95.3	98.9	71.8	83.9
	Mar.	83.8	88.0	84.6	65.4	76.7
	June	82.1	97.6	92.8	71.8	83.1
1979-80	Sept.	86.9	99.1	100.0	77.4	84.0
	Dec.	90.5	103.2	96.3	76.9	90.6
	Mar.	84.2	88.8	90.3	71.3	79.5
	June	85.2	96.8	97.3	74.0	82.6
1980-81	Sept.	88.2	103.4	103.2	78.8	85.1
	Dec.	97.5	102.4	101.8	79.8	87.5
	Mar.	84.9	85.8	88.7	72.9	80.5
	June	80.3	101.1	99.4	77.4	86.5
1981-82	Sept.	85.7	108.7	105.0	81.6	89.8
	Dec.	95.1	101.1	104.4	82.9	94.0
	Mar.	84.7	87.2	89.6	74.0	81.2
	June	87.0	97.8	98.1	80.5	88.5
1982-83	Sept.	90.0	103.2	95.0	77.9	88.8
	Dec.	94.1	91.0	92.5	78.6	85.6
	Mar.	83.9	79.4	79.5	69.9	76.2
	June	83.2	94.4	94.0	75.9	83.5
1983-84	Sept.	84.5	100.7	92.1	78.3	85.3
	Dec.	91.9	95.3	98.4	82.2	89.9
	Mar.	84.7	88.9	86.8	74.9	87.7
	June	87.5	104.9	95.4	82.8	80.7
1984-85	Sept.	88.8	113.8	105.2	89.5	88.9
	Dec.	90.7	102.2	102.9	86.3	87.5
	Mar.	83.6	87.6	87.5	81.9	87.5
	June	88.6	106.1	98.5	91.9	93.5
1985-86	Sept.	85.3	110.1	109.7	94.5	91.3
	Dec.	91.2	109.0	112.2	95.6	92.6
	Mar.	82.8	97.0	98.8	76.4	85.8
	June	86.9	117.7	103.7	84.2	87.5
1986-87	Sept.	89.5	116.4	104.7	86.6	89.4
	Dec.	98.2	110.0	108.6	97.4	95.0
	Mar.	86.8	95.4	93.7	84.3	86.4
	June	92.8	109.6	102.9	94.7	99.2
1987-88	Sept.	95.9	116.1	107.3	98.7	97.5
	Dec.	104.0	113.4	112.1	105.5	102.2
	Mar.	94.4	95.7	102.2	95.3	98.4
	June	94.2	112.5	112.9	98.5	98.1
1988-89	Sept.	98.7	119.4	123.9	105.5	100.3
	Dec.	108.5	118.1	133.4	114.9	103.4
	Mar.	97.7	102.1	103.5	93.3	97.3
	June	94.2	106.5	114.8	102.7	105.1
1989-90	Sept.	100.0	110.8	110.6	103.7	100.3
	Dec.	106.4	101.3	104.3	107.2	98.2
	Mar.	99.0	88.1	91.6	92.8	96.5
	June	94.5	99.8	93.6	96.3	104.9
1990-91	Sept.	102.5	105.4	104.4	101.9	103.5
	Dec.	108.7	106.5	97.0	103.4	106.7
	Mar.	100.9	91.5	89.0	92.4	99.7
	June	96.8	86.7	99.2	90.5	104.7
1991-92	Sept.	100.0	100.5	104.7	96.6	104.9
	Dec.	106.5	96.1	105.9	96.2	104.3
	Mar.	101.3	85.9	94.8	85.1	98.1
	June	102.1	86.2	89.2	90.1	100.1
1992-93	Sept.	104.8	92.0	95.1	95.4	101.9
	Dec.	118.2	93.6	102.4	100.4	101.4
	Mar.	104.1	83.0	90.3	91.6	99.1
	June	110.0	94.0	90.7	92.8	100.3
1993-94	Sept.	112.0	92.1	100.0	98.8	107.6
	Dec.	120.4	79.5	101.1	110.7	111.1
	Mar.	109.9	83.0	92.4	104.3	107.2
	June	113.6	82.0	94.0	116.7	113.0
1994-95	Sept.	122.8	82.8	108.2	122.3	118.0
	Dec.	131.2	78.1	109.3	124.9	118.6
	Mar.	113.3	79.5	101.8	109.5	113.4

TABLE 9. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY SUBDIVISION—ORIGINAL—continued
Index numbers (Base : 1989-90 = 100.0)

	<i>Non-metallic mineral products mfg</i>	<i>Metal products mfg</i>	<i>Machinery and equipment mfg</i>	<i>Other mfg</i>	<i>Total mfg</i>
1976-77	n.a.	n.a.	n.a.	n.a.	n.a.
1977-78	78.5	70.3	81.9	70.9	78.5
1978-79	80.6	74.8	84.3	74.7	81.7
1979-80	85.9	80.5	88.9	77.3	85.3
1980-81	88.1	84.2	89.9	79.5	87.0
1981-82	90.1	85.6	94.4	81.4	89.2
1982-83	77.6	73.7	83.6	72.7	81.8
1983-84	78.0	77.1	80.8	76.8	83.1
1984-85	84.3	81.2	86.5	79.6	87.3
1985-86	92.0	81.0	85.1	78.9	87.8
1986-87	87.6	84.3	87.0	83.2	90.2
1987-88	91.9	91.3	91.8	95.2	96.2
1988-89	103.1	97.3	99.9	99.5	101.7
1989-90	100.0	100.0	100.0	100.0	100.0
1990-91	89.9	99.3	96.8	84.9	98.1
1991-92	87.6	98.5	91.5	81.9	95.7
1992-93	96.5	97.5	100.9	86.8	99.7
1993-94	110.0	103.0	113.1	97.3	107.4
1978-79 —					
Sept.	79.6	73.5	84.2	78.9	82.1
Dec.	82.0	77.0	88.1	79.9	85.5
Mar.	79.0	71.8	76.0	66.4	76.6
June	82.0	77.0	89.1	73.5	82.8
1979-80 —					
Sept.	90.0	82.6	93.4	81.4	87.6
Dec.	84.8	81.6	95.6	77.5	89.0
Mar.	77.6	80.3	79.6	71.8	80.3
June	91.4	77.6	87.2	78.5	84.2
1980-81 —					
Sept.	89.3	81.4	91.1	84.1	87.8
Dec.	92.8	88.2	93.7	83.4	91.9
Mar.	84.8	81.2	80.3	69.9	81.2
June	85.6	86.0	94.6	80.6	87.1
1981-82 —					
Sept.	89.1	89.9	98.1	86.6	91.6
Dec.	98.4	88.3	98.3	86.6	93.9
Mar.	83.8	80.1	83.8	73.1	82.1
June	89.0	83.9	97.4	79.2	89.0
1982-83 —					
Sept.	82.9	82.7	101.6	79.2	90.1
Dec.	82.5	70.9	84.7	74.3	83.6
Mar.	64.8	64.6	68.7	62.3	72.5
June	80.0	76.5	79.5	75.3	81.2
1983-84 —					
Sept.	84.1	78.2	84.5	76.0	83.8
Dec.	80.0	77.2	84.2	81.7	85.9
Mar.	73.7	72.1	71.6	72.1	78.3
June	74.2	80.9	82.7	77.5	84.3
1984-85 —					
Sept.	85.5	83.3	89.8	89.8	90.3
Dec.	85.2	83.4	87.8	85.8	88.8
Mar.	77.8	74.3	79.2	71.2	80.8
June	88.7	84.0	89.5	71.7	89.5
1985-86 —					
Sept.	97.7	87.0	89.0	79.9	90.9
Dec.	95.4	85.3	92.0	85.1	92.9
Mar.	84.9	73.9	77.2	70.1	80.8
June	90.1	77.9	82.2	80.3	86.5
1986-87 —					
Sept.	90.1	88.2	95.3	83.8	92.3
Dec.	92.9	86.4	83.9	86.3	92.9
Mar.	78.3	77.8	80.9	76.0	83.5
June	89.1	85.0	88.1	86.7	92.1
1987-88 —					
Sept.	89.3	92.7	93.9	94.7	96.6
Dec.	97.1	95.1	91.0	101.2	99.9
Mar.	91.4	85.2	84.0	88.5	91.0
June	90.0	92.0	98.2	96.3	97.4
1988-89 —					
Sept.	105.5	98.3	100.2	100.3	102.6
Dec.	109.1	98.6	102.9	110.0	107.6
Mar.	101.9	93.4	90.2	85.6	95.0
June	95.9	98.7	106.3	102.1	101.8
1989-90 —					
Sept.	105.5	103.6	104.1	96.6	103.2
Dec.	105.1	101.3	103.5	109.7	103.9
Mar.	94.7	95.3	92.3	85.4	93.8
June	94.6	101.8	100.0	108.3	99.1
1990-91 —					
Sept.	98.0	101.6	103.0	96.9	102.3
Dec.	95.3	101.7	101.0	97.7	103.1
Mar.	83.1	96.4	85.5	73.1	92.3
June	83.4	97.4	97.4	71.8	94.9
1991-92 —					
Sept.	90.5	101.8	95.9	83.4	98.5
Dec.	87.4	99.2	94.9	91.9	99.1
Mar.	80.6	94.1	82.4	69.6	90.1
June	92.1	98.9	92.8	82.8	95.1
1992-93 —					
Sept.	94.2	97.2	100.5	91.9	99.0
Dec.	93.3	98.4	103.1	94.1	103.5
Mar.	93.6	94.5	96.3	79.2	95.4
June	105.0	100.0	103.6	81.9	100.8
1993-94 —					
Sept.	107.4	103.4	106.0	91.1	104.5
Dec.	113.4	106.2	115.5	102.4	110.6
Mar.	106.0	97.7	109.2	95.8	103.6
June	113.3	104.5	121.6	99.9	110.7
1994-95 —					
Sept.	131.4	113.0	124.0	116.7	118.1
Dec.	137.5	112.8	130.4	123.2	122.0
Mar.	128.6	104.9	119.6	104.7	110.9

TABLE 10. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY SUBDIVISION—SEASONALLY ADJUSTED

		Index numbers (Base : 1989-90 = 100.0)				
		<i>Food, beverages and tobacco mfg</i>	<i>Textile, clothing footwear and leather mfg</i>	<i>Wood and paper products mfg</i>	<i>Printing, publishing and recorded media</i>	<i>Petroleum, coal, chemical and assoc products mfg</i>
1978-79	Sept.	85.5	91.8	92.2	66.3	82.2
	Dec.	86.7	93.2	94.1	68.8	80.9
	Mar.	86.5	98.2	94.2	70.0	82.0
	June	85.5	97.3	92.7	72.6	83.4
1979-80	Sept.	87.3	92.2	95.5	74.7	81.3
	Dec.	84.1	100.8	91.9	73.8	87.2
	Mar.	87.0	99.5	100.5	76.3	85.2
	June	88.7	96.4	97.1	74.7	82.7
1980-81	Sept.	88.6	95.8	98.5	76.3	82.8
	Dec.	90.5	100.5	97.4	76.6	84.1
	Mar.	87.9	96.5	98.6	78.0	86.1
	June	83.5	100.1	99.0	77.7	86.5
1981-82	Sept.	86.1	100.3	100.1	79.3	87.5
	Dec.	88.4	99.8	100.0	79.6	90.6
	Mar.	87.8	98.6	99.4	79.3	86.4
	June	90.1	96.2	98.1	80.6	88.4
1982-83	Sept.	90.4	95.2	90.5	76.2	86.8
	Dec.	87.8	90.2	88.6	75.2	82.7
	Mar.	87.0	90.2	88.1	75.0	80.6
	June	85.8	92.0	93.9	75.7	83.7
1983-84	Sept.	84.9	93.0	88.1	77.1	83.5
	Dec.	85.9	94.7	94.1	78.2	86.9
	Mar.	87.7	101.2	95.9	80.6	92.3
	June	90.1	101.8	95.5	82.7	80.8
1984-85	Sept.	89.7	107.6	101.3	88.0	88.7
	Dec.	84.8	98.6	97.5	80.0	85.7
	Mar.	87.3	100.1	95.5	89.7	90.1
	June	90.3	103.3	99.7	92.7	93.0
1985-86	Sept.	86.2	104.1	105.8	93.0	91.1
	Dec.	85.2	105.2	106.3	88.6	90.7
	Mar.	86.3	110.5	107.8	83.5	88.4
	June	88.9	114.9	104.9	85.1	86.9
1986-87	Sept.	90.3	110.0	101.2	85.2	89.2
	Dec.	91.8	106.2	103.0	90.3	93.0
	Mar.	90.1	108.0	101.9	91.8	89.1
	June	95.4	107.6	104.1	95.9	98.3
1987-88	Sept.	96.5	109.8	103.8	97.1	97.4
	Dec.	97.3	109.5	106.4	98.0	100.0
	Mar.	97.4	107.5	110.8	103.3	101.8
	June	97.6	111.4	114.2	100.2	97.0
1988-89	Sept.	99.1	113.0	120.1	103.6	100.1
	Dec.	101.7	114.0	126.9	107.1	101.3
	Mar.	100.2	113.4	111.5	100.4	100.7
	June	98.1	106.3	116.5	105.1	103.9
1989-90	Sept.	100.1	104.9	107.1	101.5	99.9
	Dec.	99.9	97.7	99.3	100.3	96.4
	Mar.	101.3	96.8	98.1	99.1	100.0
	June	98.6	100.6	95.6	99.1	103.7
1990-91	Sept.	102.7	100.1	101.1	99.5	102.7
	Dec.	102.2	102.7	92.4	97.0	104.9
	Mar.	103.1	99.5	94.5	98.2	103.3
	June	100.9	87.7	102.2	93.3	103.8
1991-92	Sept.	100.1	95.9	101.2	94.4	103.8
	Dec.	100.1	92.5	100.8	90.4	102.6
	Mar.	103.6	92.8	100.4	90.1	101.6
	June	106.1	87.4	92.6	93.0	99.6
1992-93	Sept.	105.2	88.2	91.8	93.3	100.5
	Dec.	111.2	90.0	97.4	94.4	99.7
	Mar.	106.8	89.2	95.2	96.8	102.6
	June	114.0	95.5	94.8	95.8	100.1
1993-94	Sept.	112.5	88.6	96.4	96.8	105.8
	Dec.	113.1	76.5	96.0	104.0	109.2
	Mar.	112.8	89.0	97.2	110.1	111.0
	June	117.5	83.5	98.5	120.4	113.0
1994-95	Sept.	123.5	79.6	104.3	120.0	115.9
	Dec.	123.2	75.0	103.5	117.2	116.7
	Mar.	116.4	85.1	107.1	115.5	117.3

TABLE 10. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY SUBDIVISION — SEASONALLY ADJUSTED—continued

		Index numbers (Base : 1989-90 = 100.0)				
		<i>Non-metallic mineral products mfg</i>	<i>Metal products mfg</i>	<i>Machinery and equipment mfg</i>	<i>Other mfg</i>	<i>Total mfg</i>
1978-79	Sept.	78.1	71.8	81.4	73.8	80.1
	Dec.	78.2	73.9	83.1	75.7	81.2
	Mar.	85.0	76.0	85.2	74.9	82.6
	June	81.7	78.0	88.0	73.8	83.4
1979-80	Sept.	88.1	80.9	89.9	76.2	85.3
	Dec.	81.0	78.3	90.3	73.1	84.7
	Mar.	83.4	85.3	89.6	80.9	86.7
	June	91.3	78.4	86.1	78.8	84.7
1980-81	Sept.	87.4	79.5	87.4	79.1	85.2
	Dec.	89.0	84.8	88.7	78.8	87.7
	Mar.	90.9	86.5	90.5	78.8	87.8
	June	85.4	86.5	93.4	80.9	87.5
1981-82	Sept.	87.2	87.7	93.5	81.6	88.6
	Dec.	94.5	84.9	93.5	81.9	89.9
	Mar.	90.0	85.9	94.5	81.9	89.0
	June	88.9	84.2	96.1	79.9	89.2
1982-83	Sept.	81.0	80.2	96.7	74.9	87.0
	Dec.	79.4	68.3	81.0	70.3	80.2
	Mar.	69.7	69.6	77.3	69.6	78.4
	June	79.8	76.7	78.2	75.9	81.3
1983-84	Sept.	82.2	75.6	80.4	71.8	81.0
	Dec.	76.7	74.5	80.9	77.4	82.6
	Mar.	78.9	78.0	80.2	80.6	84.7
	June	74.3	81.1	81.5	78.1	84.3
1984-85	Sept.	82.9	79.8	86.1	85.5	88.0
	Dec.	86.9	80.2	84.7	80.3	84.6
	Mar.	83.3	80.7	86.5	78.6	87.0
	June	90.6	84.5	88.9	73.3	89.9
1985-86	Sept.	94.8	83.4	85.3	76.2	88.6
	Dec.	90.7	82.1	88.8	79.4	88.5
	Mar.	90.6	80.1	84.5	77.5	87.0
	June	92.4	78.5	81.5	81.7	86.9
1986-87	Sept.	87.4	84.6	91.5	80.6	90.0
	Dec.	88.3	83.4	81.0	79.9	88.5
	Mar.	83.0	84.0	88.6	84.8	89.8
	June	92.0	85.6	87.0	87.5	92.7
1987-88	Sept.	86.4	89.1	90.3	91.9	94.3
	Dec.	92.4	92.2	87.9	92.9	95.3
	Mar.	96.3	91.4	92.2	99.4	97.5
	June	93.4	92.6	96.8	96.8	98.1
1988-89	Sept.	101.8	94.6	96.5	98.1	100.2
	Dec.	104.1	99.0	99.5	100.0	102.7
	Mar.	107.0	99.5	99.1	96.9	101.4
	June	99.9	99.1	104.5	102.4	102.7
1989-90	Sept.	101.4	100.1	100.3	94.5	100.7
	Dec.	100.8	99.1	100.1	99.2	99.4
	Mar.	99.6	98.6	101.5	96.9	99.8
	June	98.2	102.1	98.1	109.4	100.1
1990-91	Sept.	93.8	98.7	99.6	94.5	99.9
	Dec.	91.9	99.7	97.6	88.1	98.8
	Mar.	87.5	101.4	93.6	82.7	97.8
	June	86.0	97.5	95.7	73.2	95.9
1991-92	Sept.	86.8	99.3	93.1	80.9	96.4
	Dec.	84.6	97.3	91.5	83.0	95.0
	Mar.	85.3	98.6	89.9	78.1	95.2
	June	94.1	99.1	91.3	85.8	96.3
1992-93	Sept.	90.4	95.1	97.7	88.4	97.0
	Dec.	90.3	96.5	99.2	85.4	99.0
	Mar.	99.3	98.9	104.8	88.1	100.8
	June	106.9	100.1	102.2	85.8	102.1
1993-94	Sept.	103.4	101.2	103.4	86.9	102.5
	Dec.	109.8	104.1	111.0	93.2	105.8
	Mar.	112.5	102.2	118.7	106.2	109.5
	June	115.0	104.7	120.0	105.0	112.2
1994-95	Sept.	126.5	110.7	121.0	111.1	115.9
	Dec.	133.3	110.5	125.2	112.3	116.7
	Mar.	136.5	109.7	129.9	115.7	117.2

TABLE 11. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY SUBDIVISION — TREND ESTIMATES
Index numbers (Base : 1989-90 = 100.0)

	<i>Food, beverages and tobacco mfg</i>	<i>Textile, clothing footwear and leather mfg</i>	<i>Wood and paper products mfg</i>	<i>Printing, publishing and recorded media</i>	<i>Petroleum, coal, chemical and assoc products mfg</i>
1978-79 — Sept.	85.8	92.6	92.0	66.2	81.0
Dec.	86.1	94.9	93.0	68.2	81.8
Mar.	86.4	96.1	93.2	70.4	81.8
June	86.1	96.5	92.8	72.3	82.4
1979-80 — Sept.	85.7	97.0	93.1	73.8	83.8
Dec.	85.8	98.2	94.6	74.7	84.9
Mar.	86.6	98.6	96.5	75.1	84.8
June	88.1	98.1	97.5	75.4	83.6
1980-81 — Sept.	89.6	97.3	97.5	75.9	82.9
Dec.	89.1	97.9	97.0	76.6	84.0
Mar.	87.2	99.0	97.7	77.4	85.3
June	85.6	99.6	98.4	78.2	86.9
1981-82 — Sept.	85.6	100.2	99.2	78.7	88.0
Dec.	87.2	100.0	99.6	79.5	88.5
Mar.	88.9	98.7	98.5	79.8	88.4
June	89.6	96.8	95.6	78.7	87.5
1982-83 — Sept.	89.5	94.0	91.1	77.0	85.6
Dec.	88.4	91.7	88.6	75.2	83.3
Mar.	86.8	90.7	88.5	74.8	81.7
June	85.6	91.3	89.6	75.5	82.1
1983-84 — Sept.	85.2	93.4	90.8	76.7	85.1
Dec.	86.0	96.4	92.4	78.2	87.0
Mar.	88.0	99.8	94.3	80.7	87.4
June	88.9	102.0	95.4	82.7	87.2
1984-85 — Sept.	87.3	104.0	98.7	83.9	87.2
Dec.	87.1	101.9	97.0	85.1	88.0
Mar.	87.5	101.1	96.9	88.0	89.7
June	87.8	102.0	99.2	91.6	91.4
1985-86 — Sept.	87.0	104.2	103.4	91.9	91.8
Dec.	85.8	107.1	106.3	88.4	90.1
Mar.	86.3	110.8	105.9	85.0	88.2
June	88.5	112.5	104.0	84.1	88.1
1986-87 — Sept.	90.0	110.9	101.9	85.9	88.9
Dec.	90.9	108.3	101.3	89.1	90.6
Mar.	92.1	107.4	101.7	92.3	92.8
June	94.2	108.5	102.5	94.8	95.4
1987-88 — Sept.	96.3	109.2	103.6	97.1	98.4
Dec.	97.2	109.2	105.9	99.1	100.0
Mar.	97.2	109.6	109.3	100.4	99.6
June	98.0	111.0	115.1	102.3	99.4
1988-89 — Sept.	99.4	113.4	119.4	103.4	99.4
Dec.	100.3	114.2	120.3	103.9	100.6
Mar.	100.0	112.3	117.4	103.8	102.1
June	99.3	108.4	111.8	102.7	101.5
1989-90 — Sept.	99.5	103.2	106.0	101.6	99.7
Dec.	99.9	99.4	100.4	100.4	98.6
Mar.	100.2	98.2	96.9	99.2	99.6
June	100.4	99.2	96.6	98.9	102.1
1990-91 — Sept.	101.4	101.9	95.7	98.6	103.7
Dec.	102.4	100.9	94.7	97.8	103.9
Mar.	102.4	97.4	95.8	96.5	103.8
June	101.0	93.9	98.4	94.7	103.7
1991-92 — Sept.	100.2	92.8	101.1	92.6	103.3
Dec.	101.0	93.1	100.6	91.0	102.5
Mar.	102.8	91.7	97.0	90.8	101.2
June	105.0	89.3	94.1	91.6	100.1
1992-93 — Sept.	107.2	88.4	93.0	93.4	100.0
Dec.	109.6	89.6	93.8	94.6	100.2
Mar.	111.9	91.5	95.0	95.1	100.8
June	113.1	92.1	94.9	95.9	102.2
1993-94 — Sept.	112.8	91.5	94.9	97.9	105.1
Dec.	112.5	90.1	95.4	103.4	108.3
Mar.	114.1	87.7	96.6	111.3	111.2
June	118.2	83.7	98.8	117.5	113.3
1994-95 — Sept.	121.1	79.9	101.7	119.0	115.2
Dec.	121.4	79.2	104.0	117.9	116.6
Mar.	119.6	80.8	105.7	115.6	117.2

TABLE 11. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY SUBDIVISION — TREND ESTIMATES—continued

		Index numbers (Base : 1989-90 = 100.0)				
		<i>Non-metallic mineral products mfg</i>	<i>Metal products mfg</i>	<i>Machinery and equipment mfg</i>	<i>Other mfg</i>	<i>Total mfg</i>
1978-79	Sept.	78.1	72.9	81.7	75.2	80.2
	Dec.	80.1	74.1	82.8	75.3	81.2
	Mar.	82.9	76.3	84.8	75.2	82.4
	June	84.7	78.2	87.4	74.7	83.6
1979-80	Sept.	84.4	80.0	89.3	75.0	84.6
	Dec.	84.1	81.4	89.6	76.5	85.4
	Mar.	85.7	81.3	88.3	78.3	85.4
	June	87.7	80.7	86.9	79.5	85.3
1980-81	Sept.	89.8	81.4	86.7	79.5	85.8
	Dec.	89.8	83.5	88.2	78.9	86.7
	Mar.	88.4	86.5	90.4	79.7	87.5
	June	88.2	87.4	92.1	80.7	88.0
1981-82	Sept.	89.4	87.0	93.0	81.8	88.5
	Dec.	91.5	86.5	93.4	82.6	89.2
	Mar.	91.5	86.2	95.1	81.8	89.7
	June	88.2	83.6	95.5	79.4	88.6
1982-83	Sept.	82.3	77.8	91.4	74.9	85.3
	Dec.	77.1	72.4	84.0	71.8	81.6
	Mar.	75.5	71.3	78.2	71.2	79.5
	June	77.5	73.6	77.3	72.5	79.8
1983-84	Sept.	79.9	75.7	79.2	74.9	81.4
	Dec.	79.8	76.5	80.0	77.0	82.7
	Mar.	77.2	78.0	80.5	78.9	83.9
	June	75.8	80.5	81.2	80.2	84.9
1984-85	Sept.	81.3	79.7	84.7	84.6	86.2
	Dec.	82.5	80.7	85.4	81.2	86.3
	Mar.	85.4	82.1	86.1	77.8	87.2
	June	89.9	83.5	86.9	75.7	88.4
1985-86	Sept.	92.7	83.8	87.2	76.2	89.0
	Dec.	92.9	82.0	85.6	77.9	88.0
	Mar.	91.6	80.5	84.8	79.8	87.3
	June	90.8	80.9	84.6	80.2	87.7
1986-87	Sept.	88.9	82.5	84.9	80.7	88.3
	Dec.	87.2	83.9	85.5	81.7	89.1
	Mar.	86.8	84.7	86.2	84.3	90.3
	June	87.8	86.4	87.1	87.8	92.0
1987-88	Sept.	89.9	89.2	88.3	91.5	94.1
	Dec.	92.2	91.3	89.3	94.9	95.6
	Mar.	94.2	92.4	91.8	97.1	96.8
	June	97.3	93.1	94.7	98.5	98.5
1988-89	Sept.	101.1	94.7	96.8	98.7	100.3
	Dec.	104.4	97.0	98.5	99.1	101.6
	Mar.	105.0	98.9	100.3	99.5	102.2
	June	103.0	100.0	101.2	98.9	101.7
1989-90	Sept.	101.3	99.9	101.1	97.6	100.7
	Dec.	100.8	99.8	100.3	98.7	99.9
	Mar.	100.1	100.1	99.4	101.4	99.6
	June	97.8	100.2	99.2	102.3	99.8
1990-91	Sept.	94.9	100.5	98.0	97.6	99.7
	Dec.	91.3	100.3	96.5	88.9	98.7
	Mar.	88.5	100.0	95.1	80.8	97.5
	June	86.8	99.5	93.8	78.3	96.4
1991-92	Sept.	85.4	98.6	92.5	78.8	95.6
	Dec.	85.8	98.6	90.7	80.5	95.2
	Mar.	87.9	98.7	90.0	82.7	95.2
	June	90.1	97.8	91.8	84.4	95.8
1992-93	Sept.	91.3	97.0	95.8	86.8	97.3
	Dec.	94.0	97.0	99.9	87.6	99.1
	Mar.	98.7	98.4	101.8	86.6	100.7
	June	103.9	100.6	102.4	86.2	102.0
1993-94	Sept.	107.1	102.0	104.9	88.9	103.5
	Dec.	108.8	102.7	110.2	94.9	105.9
	Mar.	112.2	103.9	116.0	102.3	109.3
	June	118.3	106.3	119.4	107.7	112.5
1994-95	Sept.	125.4	108.9	121.7	110.6	114.9
	Dec.	132.5	110.7	124.6	113.0	116.5
	Mar.	137.6	111.1	127.8	115.6	117.3

EXPLANATORY NOTES

Introduction

This publication presents in index number form, quarterly estimates of gross product at constant prices (average 1989-90 prices) for the non-farm, goods producing sector which, for brevity, is termed the 'industrial sector' (see paragraph 3). Also presented are indexes for component industries, including individual manufacturing subdivisions.

Changes in this issue

2. Trend, seasonally adjusted and original estimates have been revised for all years as a result of finalising new industry data for the base year income-based estimates of industry gross product.

3. The base year data used to compile December quarter 1994 indexes were preliminary estimates based on the new industrial classification introduced by the ABS in 1994. They have been revised due to a reallocation of wages, salaries and supplements and general government gross operating surplus (depreciation) by industry. Recent quarterly estimates have also been affected by the availability of more complete survey data.

Scope of the estimates

4. The scope of the industrial sector referred to in this publication is defined to include all *establishments* classified to the Australian and New Zealand Standard Industrial Classification (ANZSIC) Division B (Mining), excluding ANZSIC subdivision 15 (Services to mining); Division C (Manufacturing); and Division D (Electricity, gas and water). The base year weights used in constructing the indexes in this publication have been derived from establishment data. However, the quarterly indicator series used for manufacturing are based on data relating to *business units* which may cover more than one establishment.

The table below sets out the base year weights associated with the major components of the industrial sector, and each manufacturing subdivision.

	1989-90 Weight %
Mining (excluding services to mining)	18.0
Manufacturing	67.5
Food, beverages and tobacco	13.7
Textiles, clothing, footwear, leather	3.7
Wood, and paper products	3.5
Printing, publishing, recorded media	6.4
Petroleum, coal, chemicals etc	6.5
Non-metallic mineral products	3.4
Metal products	11.4
Machinery and equipment	15.6
Other manufacturing	3.3
Electricity, gas and water	14.5
Total Industrial sector	100.0

5. The use of Manufacturers' sales and stocks data means that the manufacturing indexes have three important limitations as measures of manufacturing production:

- (a) changes in quarterly production by manufacturing establishments of non-manufacturing businesses are not reflected in the indexes;
- (b) changes in a part of the quarterly production of non-manufacturing establishments of manufacturing businesses are reflected in the indexes; and
- (c) changes in quarterly production by government bodies such as shipyards and railway workshops are not reflected in the indexes.

6. The scope of the data used in the manufacturing indicator series also differs slightly from the general definition of manufacturing gross product. The stocks estimates used include finished goods bought in, but not manufactured, by a business. As far as can be assessed this has not had a significant influence on the estimates.

Derivation of the estimates of gross product

7. The estimates are derived using the *gross output* method whereby base year (1989-90) estimates of gross product are extrapolated by constant price estimates of gross output. All the quarterly indexes contained in this publication have been *benchmarked*, where possible, to annual estimates (see paragraph 7 below). For further details on the derivation of constant price gross product for individual industries refer to Chapter 18 in *Australian National Accounts : Concepts, Sources and Methods* (5216.0).

Benchmarking

8. Deriving quarterly estimates presents special problems in that it is often difficult to adhere strictly to the definitions and concepts used in annual estimates. Frequently, it is not possible to use the same data sources as used for annual estimates, and alternative quarterly data sources are generally much less detailed. For example, annual estimates of gross product for the Mining industry (as published in *Australian National Accounts : National Income and Expenditure* (5204.0)) are compiled (using the double deflation method) from detailed output and input data from the annual census of mining establishments. On the other hand, the quarterly series draw on the quantities of minerals mined (gross output), reported in surveys of mining establishments. In such cases, where the quarterly estimates are inferior to the annual, the quarterly estimates are adjusted to agree with the annual estimates in such a way that preserves, as far as practical, the movements of the quarterly series. This is commonly referred to as *benchmarking*.

Data sources for quarterly output series

(i) Mining (excluding services to mining)

9. Quarterly constant price output estimates are derived for major ANZSIC classes by quantity revaluation (i.e. quantities produced each quarter multiplied by associated base year (1989-90) average prices). Estimates of quantities produced are obtained from data contained in *Quarterly Mineral Statistics* (Australian Bureau of Agriculture and Resource Economics) and *Mining Production, Australia* (8405.0). Constant price estimates of value added are derived by the gross output method (see para-

graph 6) for each ANZSIC class. Total quarterly estimates of value added are then benchmarked (see paragraph 7) to annual gross product estimates obtained from the mining census.

(ii) *Manufacturing*

10. Quarterly constant price estimates of gross output for 22 manufacturing industry groups (excluding petroleum) are derived by summing constant price estimates of manufacturers' sales of manufactured goods, other operating revenue (where significant) and changes in the level of stocks of finished goods and work-in-progress.

11. Constant price estimates of all components of manufacturing output are derived by price deflation, i.e. current price components (obtained from the quarterly Survey of Stocks and Manufacturers' Sales) are derived by fixed weighted producer price indexes (published in *Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0)*).

12. Quarterly petroleum production estimates are based on quarterly data published in *Major Energy Statistics* (released by the Department of Primary Industries and Energy).

13. Quarterly constant price estimates of output are used to derive constant price estimates of gross product at factor cost by the gross output method. The latter estimates are aggregated to 9 manufacturing ANZSIC subdivisions and then benchmarked to corresponding annual estimates of gross product at market prices (based on manufacturing census data).

(iii) *Electricity*

14. Quarterly quantities of electricity produced, as published in *Production of Energy Products, Australia (8368.0)*, are benchmarked to annual gross product estimates based on the quantity of electricity sold (published by the Electricity Supply Association of Australia in *The Electricity Industry of Australia*).

(iv) *Gas*

15. Quarterly quantities of gas available through mains, are published in *Production of Energy Products, Australia (8368.0)*, are benchmarked to gross product estimates derived from ABS economic census data relating to the performance of the gas production and distribution industry.

(v) *Water and sewerage*

16. Quarterly constant price output estimates are derived by quantity revaluation, i.e. quantities of water sold (to final consumers and for irrigation) and sewerage connections, are multiplied by average 1989-90 prices for each type of service. The quantity data are supplied by a selection of state and local government authorities. Quarterly output estimates are then benchmarked to annual constant price gross product estimates.

Sample revision

17. Each year the sample used for the survey of stocks and manufacturers' sales is revised. Differences between the old and revised samples have in general been appor-

tioned back over the preceding quarters of each year, and incorporated in the estimates included in this publication. For more information on the sample revision, refer to *Stocks, Selected Industry Sales and Expected Sales, Australia (5629.0)*.

Reliability of estimates

18. Because the measures used in the derivation of the manufacturing indexes are based on a sample survey, the indexes themselves are subject to sampling variability. In terms of original estimates the standard errors in percentage terms approximate the errors reported in *Stocks and Manufacturers' Sales, Australia (5629.0)*. However, for constant price estimates the standard errors may be up to 10 per cent higher than those for the corresponding current price estimates because of the sampling variability contained in the prices data used to deflate the current price estimates. Seasonally adjusting the estimates has an insignificant effect on standard errors.

19. The imprecision due to sampling variability, which is measured by the standard error, should not be confused with inaccuracies that may occur because of imperfections in reporting by respondents and errors made in collecting and processing data. Inaccuracies of this kind are known as non-sampling errors and may occur in any collection, whether it be a sample or a full count. In addition to the non-sampling errors which may occur in current prices estimates, there may be non-sampling errors introduced by the process of compiling constant price estimates. These further errors may arise from the introduction of additional data and from the assumptions and approximations which are necessary in compiling constant price estimates. Every effort is made to minimise non-sampling errors by careful design of forms, editing of data and efficient operating procedures.

Seasonal adjustment

20. Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series may be more clearly recognized. Seasonal adjustment procedures do *not* aim to remove the irregular or non-seasonal influences which may be present in any particular quarter, such as the effect of a major industrial dispute or major plant breakdowns. Irregular factors of this nature can make it difficult to interpret the movement of the series even after adjustment for seasonal variation.

21. Seasonal adjustment may be carried out by various methods and the results may vary slightly according to the procedure adopted. Accordingly, seasonally adjusted statistics should not be regarded as in any way definitive. In interpreting particular seasonally adjusted statistics it is important to note the methods by which they have been derived and the limitations to which the methods used are subject. Details of the various seasonal adjustment methods used are available on request.

Trend estimates

22. The seasonally adjusted series can be smoothed to reduce the impact of the irregular component in the adjusted series. There are a number of ways of accomplishing this, depending on the intended uses of the

smoothed series. If importance is attached to measuring the underlying change in the most recent periods, moving averages employing appropriate weighting patterns should be adopted; the choice of averaging technique will determine the degree of smoothness of the derived series. For example, a 9-term moving average will even out more of the short term fluctuation in a series (and therefore appear 'smoother') than will a 5-term moving average. However, the longer the term of the moving average the longer the series affected by revisions resulting from more recent data becoming available. Such smoothed seasonally adjusted estimates are referred to as 'trend estimates' in this publication.

23. Trend estimates included in this issue are derived using a 7-term Henderson moving average. (The weights of the 7-term average are available upon request.) As a moving average approaches the end of a time series and begins to run out of observations, asymmetric averages have been used. Unlike the asymmetric weights of the standard 7-term Henderson moving averages, the weights employed here have been tailored to suit the particular characteristics of individual manufacturing subdivisions.)

24. Users may wish to refer to the ABS Information Papers *A Guide to Interpreting Time Series — Monitoring 'Trends', An Overview* (1348.0) for more information on smoothing seasonally adjusted time series data.

Related publications

25. Users may also wish to refer to the following publications:

Australian National Accounts : National Income, Expenditure and Product (5204.0) — issued annually

Australian National Accounts : National Income, Expenditure and Product (5206.0) — issued quarterly

Australian National Accounts : Concepts, Sources and Methods (5216.0)

Manufacturing Industry, Australia (8221.0) — issued annually

Mining Industry, Australia (8402.0) — issued annually

Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0) — issued monthly

Manufacturing Production, Australia (8301.0) — issued monthly

Stocks, Selected Industry Sales and Expected Sales, Australia (5629.0) — issued quarterly

The Australian Mining Industry (8414.0) — issued annually

26. Current publications produced by the ABS are listed in the *Catalogue of Publications and Products, Australia* (1101.0). The ABS also issues on Tuesday and Fridays, a *Publications Advice* (1105.0) which lists publications to be released in the next few days. The Catalogue and Publications Advice are available from any ABS office.

Symbols and other usages

— nil or rounded to zero

ANZSIC Australian and New Zealand Standard Industrial Classification

ASIC Australian Standard Industrial Classification, 1983 edition

W McLennan
Australian Statistician

Produced by the Australian Government Publishing Service
© Commonwealth of Australia 1995

Recommended retail price: \$13.00



2812500003959
ISSN 1035-9613